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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,678	09/02/2003	Michael John Keogh		4598

7590 07/25/2006  
Michael John Keoga  
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PINEHURST, NC 28374

EXAMINER

NGUYEN, CHAU N

ART UNIT PAPER NUMBER

2831

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/653,678	<b>Applicant(s)</b> KEOGH, MICHAEL JOHN	
	<b>Examiner</b> Chau N. Nguyen	<b>Art Unit</b> 2831	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 35-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-39 and 42-51 is/are rejected.
- 7) ☒ Claim(s) 40 and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Correction of the following is required:

Claimed subject matter as recited in claims 38, 40 and 45 are not disclosed in the specification.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 36, 43, 46 and 49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure, as originally filed, does not provide support for the claimed subject

matter of "the outer layer contains a copolymer of propylene and one or more alpha olefins having 4-12 carbon atoms as the base resin, wherein the portion of the copolymer based on propylene is at least 60 percent by weight based on the weight of the copolymer" as recited in claims 36 and 43, subject matter of "the outer layer is of a predetermined thickness of at least 1 mil" as recited in claim 46, subject matter of "the acid neutralizer is in about 0.5 to 50 parts by weight contained in 100 parts by weight of the homopolymer or copolymer of propylene" as recited in claim 49.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 35-39, 42-46, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisleri et al. (2001/0025720) in view of Weil et al. (5,578,666).

Bisleri et al. discloses a dual layer thermoplastic polymer-based non-halogen protective sheath consisting of an outer layer solid organo, non-foamed thermoplastic polymer layer as means for providing thermal, physical and

mechanical protection, and an inner solid, non-foamed thermoplastic polymer layer as means for providing a layer of fire protection.

Bisleri et al. does not specifically disclose the dual layer being provided around an insulated wire nor the outer layer being an intumescent layer or comprising intumescent material (re claims 35 and 43) which is a melamine phosphate (re claim 37).

Bisleri et al. discloses the dual layer surrounding a wire (a conductor) but not an insulated wire. However, it would have been obvious to one skilled in the art to modify the wire of Bisleri et al. to be an insulated wire to further protect the wire from the environment since a wire comprising plural layers of insulation is known in the art.

Weil et al. discloses a flame retardant composition which is suitable for used as wire insulation and cable jacket and which comprises an effective amount of intumescent material which is melamine phosphate. Weil et al. also discloses the melamine phosphate being in about 5 to about 100 parts by weight contained in 100 parts by weight of the polypropylene (re claims 38 and 45). It would have been obvious to one skilled in the art to use the intumescent material as taught by Weil et al. in the outer layer of Bisleri et al. to improve the flame retardant of the cable.

The modified cable of Bisleri et al. also discloses the outer layer containing a copolymer of propylene and one or more alpha olefins having 4-12 carbon atoms as the base resin, wherein the portion of the copolymer based on propylene is at least 60 percent by weight based on the weight of the copolymer (re claims 36 and 44), the outer layer being of a predetermined thickness to provide sufficient thermal protection to the flame retarded inner layer (re claim 39), the modified cable of Bisleri et al. can be used in a plenum or riser cable, a building or automotive wire since it comprises structure and material as claimed (re claims 42, 50 and 51), and the outer layer being at least 1 mil in thickness (re claim 46).

6. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisleri et al. in view of Weil et al. as applied to claim 43 above, and further in view of Kim et al. (2002/0096356).

Claims 47-49 additionally recite the inner layer containing sufficient acid neutralizer which is magnesium hydroxide and in amount of 0.5 to 50 pbw per 100pbw of the homopolymer or copolymer of propylene. Kim et al. discloses a dual layer sheath comprising an inner layer containing sufficient acid neutralizer which is magnesium hydroxide. It would have been obvious to one skilled in the art to include magnesium hydroxide in the inner layer of Bisleri et al. to improve

the flame retardant properties of the sheath as taught by Kim et al. It would also have been obvious to one skilled in the art to choose a suitable amount of the acid neutralizer in the inner layer of Bisleri et al. to meet the specific use of the resulting cable since the flame retardant of the cable can be adjusted by adjusting the amount of the acid neutralizer (magnesium hydroxide) as taught by Kim et al. and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233.

***Allowable Subject Matter***

7. Claims 40 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

8. Applicant's arguments with respect to claims 35 and 43 have been considered but are moot in view of the new ground(s) of rejection.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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A handwritten signature in black ink, appearing to read "Chau N Nguyen". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

Chau N Nguyen  
Primary Examiner  
Art Unit 2831